



Curriculum Vita

Muhammad Ali, PhD

Associate professor, Department of Biotechnology, Quaid-i-Azam University Islamabad

Member, Pakistan Academy of Sciences (PAS)

Co-chapter head, Pakistan Biological Safety Association (PBSA-ICT)

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Research Interest:

As group leader in infectious diseases and molecular pathology, I have developed BSL-II Laboratory for detection and characterization of emerging pathogens. In addition, I am interested in developing deeper understanding of medicinal biotechnology and molecular systematics in dealing with different aspects of infectious diseases; with specific focus on multi-disciplinary and/or interdisciplinary approaches.

Google Scholar profile: https://scholar.google.com/citations?user=rWvIH_gAAAAJ&hl=en

Position held:

- **April 03, 2024 – to-date:** Associate Professor (tenured), Department of Biotechnology, Quaid-i-Azam University Islamabad.
- **July 6, 2015 – April 03, 2024:** Assistant Professor, Department of Biotechnology, Quaid-i-Azam University Islamabad.
- **November 17, 2020 – to-date:** Group leader, Infectious Diseases and Molecular Pathology Laboratory (IDMPL), Quaid-i-Azam University Islamabad.
- **May 03, 2023 - to-date:** Deputy Director (Coordination), Directorate of Student Affairs, Quaid-i-Azam University Islamabad.

Education:

- **2012-2015: PhD in Molecular and Cell Biology/Biotechnology**, Laboratory of molecular virology and cellular pathology, Department of Sciences, *University Roma Tre*, Rome, Italy.
- **2009-2011: M. Phil in Molecular Biology**, National Centre of Excellence in Molecular Biology (CEMB), *University of the Punjab*, Lahore, Pakistan; Percentage: 78.66% (CGPA: 3.43/4) (1st Division)
- **2003-2008: BS (Hons) Biotechnology**, Department of Biotechnology, *University of Malakand*, Pakistan. Percentage: 76.57% (with distinction)

Brief profile/achievements

- **Competitive projects/grants won: 05 (National: 03, International: 02)**
- **Peer-reviewed articles published: >130**
- **Conference abstract book: 03**
- **Google Scholar citations: >40,000**
- **Special issue of Peer-reviewed journal published as Guest-editor: 02**
- **PhD students supervised: 02**
- **Book chapter published: 01**
- **Patents: 01**
- **M. Phil students supervised: 38**

Selected Publications and patents

1. Zubair A, **Ali M**, Al-Emam A, Elmagzoub RM. Integrative genomic and immunoinformatic approach for characterizing HIV-1 pol, vpr, and Nef genes and designing a multi-epitope vaccine. *Sci Rep*. 2025;15(1):33690. doi:10.1038/s41598-025-18828-8. **IF = 3.9/Q1**
2. Khan A, Younis T, Anas M, **Ali M**, Shinwari ZK, Khalil AT, Munawar KS, Mohamed HEA, Hkiri K, Maaza M, Seleiman MF, Khan N. *Withania coagulans*-mediated green synthesis of silver nanoparticles: characterization and assessment of their phytochemical, antioxidant, toxicity, and antimicrobial activities. *BMC Plant Biol* 2025; 25:574. <https://doi.org/10.1186/s12870-025-06533-7> **IF = 4.8/Q1**
3. Abbas R, Haris M, Rahman S, Shahid SA, Gul T, Farooq A, Ismail A, Alotaibi O, Batiha GE, **Ali M**. The Hidden Bacterial World of Natural Springs: Insight Through MALDI-TOF-Mass Spectrometry. *MicrobiologyOpen* 2025;14(6):e70021. doi:10.1002/mbo3.70021. **IF = 4.6/Q1**
4. Khan AA, Khan M, Khan SW, Siddique N, Abid R, Zulfiqar S, Rahman S, **Ali M**. Chiral phthalimides against penicillin-binding protein 2a of methicillin-resistant *Staphylococcus aureus*: molecular docking and *in vitro* analysis. *Front Pharmacol*. 2024; 15:1293458. **IF = 4.8/Q1**
5. Hafeez A, Dangel WJ, Ostroff SM, Kiani AG, Glenn SD, Abbas J, Afzal MS, Afzal S, Ahmad S, Ahmed A, Ahmed H, Ali L, **Ali M**, Ali Z, Arsahd M, Ashraf T, Bhutta ZA, *et al.*, The state of health in Pakistan and its provinces and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Global Health*. 2023;11(2):e229-43. **IF = 18.0/Q1**
6. Din M, Ali H, Khan M, Waris A, Ullah S, Kashif M, Rehman S, **Ali M**. Impact of COVID-19 on polio vaccination in Pakistan: a concise overview. *Rev Med Virol*. 2021, 31(4):e2190. **IF = 6.6/Q1**
7. Percario ZA, **Ali M**, Mangino G, Affabris E. Nef, the shuttling molecular adaptor of HIV, influences the cytokine network. *Cytokine & Growth Factor Rev*. 2015, 26(2); 159–173. **IF = 11.8/Q1**
8. Waris A, Din M, Iqbal N, Yar L, Khalid A, Nawaz M, Baset A, **Ali M**. Evaluation of serum procalcitonin level as a biomarker for disease severity in COVID-19 patients. *New Microbes and New Infections* 2021;43:100922. **IF = 5.4/Q1**
9. Tanveer F, Khalil AT, **Ali M**, Shinwari ZK. Ethics, pandemic and environment; looking at the future of low middle income countries. *International journal for equity in health*. 2020;19(1):182. <https://doi.org/10.1186/s12939-020-01296-z> **IF = 4.1/Q1**
10. Waris A, Atta UK, **Ali M**, Asmat A, Baset A. COVID-19 outbreak: current scenario of Pakistan. *New Microbes New Infect*. 2020;35:100681. <https://doi.org/10.1016/j.nmni.2020.100681> **IF = 5.4/Q1**
11. Zia A, **Ali M**, Aziz H, Shinwari ZK, Zia M., Raza A. A case of a patient infected with a hepatitis C virus genotype 3a multidrug resistant variant in Pakistan. *Infectious Diseases of Poverty* 2018, 7:11. **IF = 5.5/Q1**

Bats-associated viruses reported for the first time from Pakistan

12. Rahman S, Ullah S, Shinwari ZK, **Ali M**. Bats-associated beta-coronavirus detection and characterization: First report from Pakistan. *Infect Genet Evol*. 2023;108:105399. **IF = 2.6**
13. Rahman S, Shahid SA, Ayaz H. Shah SA, **Ali M**. Preliminary Detection of Bats-associated Influenza A virus from Pakistan. *Curr Microbiol* **82**, 484 (2025). <https://doi.org/10.1007/s00284-025-04467-9> **IF = 2.6**

Policy articles (Conference & Workshop proceedings, Editorials)

14. **Ali M**. (Editorial/Guest Editor). ANSO-PAS Joint Efforts for Capacity Building in Emerging Pathogens Research. *Proceedings of the Pakistan Academy of Sciences: B*, 2024; 61(S): 1-2. [http://doi.org/10.53560/PPASB\(61-sp1\)](http://doi.org/10.53560/PPASB(61-sp1)).
15. **Ali M**, Shinwari ZK. ANSO-PAS-MAPP Conference 2023: Recommendations & Media Coverage. *Proceedings of the Pakistan Academy of Sciences: B*, 2024; 61(S):125-129.
16. **Ali M**, Iqrar I (Editors). PAS-ANSO Strategic Planning for Epidemic and Pandemic Preparedness. *Proceedings of the Pakistan Academy of Sciences: B*. 2023;60(S): 1-1.
17. Gul H, Khan N, Usman M, Rahman S, Iqrar I, Shinwari ZK, **Ali M**. Proceedings of the ANSO-PAS-QAU Workshop 2023 on “Ensuring Biosafety: Empowering Trainers in Risk Management and Biosecurity”. *Proceedings of the Pakistan Academy of Sciences: B*. 2023;60(3):557-64.

18. Iqrar I, **Ali M**, Shinwari ZK. Proceedings of the ANSO-PAS-MAAP Conference on Epidemic and Pandemic Preparedness: *Proceedings of the Pakistan Academy of Sciences: B*. 2023;60(S):115-28.
19. Nawaz A, Khan N, Ahmad H, Iqrar I, **Ali M**, Shinwari ZK. Proceedings of the MAAP-PAS-ANSO Hybrid Workshop on "Ecosystem Restoration: One-Health and Pandemics". *Proceedings of the Pakistan Academy of Sciences: Part B* 2022; 59(2): 79-83.

Patents

1. Synthesis of zinc oxide nanorods using *Momordica charantia* plant extracts. Patent No. 143473 on (Granted: May 24, 2021). Patent office, Government of Pakistan.

Conferences/Workshops/Trainings

- **Conferences/workshops/symposia organized as organizer/member of technical committee/focal person: 19**
- **Conferences/workshops/symposia/trainings attended: >55**
- **Number of countries visited for Conferences/workshops/symposia: 07** (including Italy, Jordan, Turkey, China, Malaysia, and Germany)
- **Number of invited talks/presentations in conferences/workshops: 09**
- **Oral/poster presentations: 11**

Fellowships and awards

- ✓ Certificate of recognition for global research influence and advancement of knowledge, Higher Education Commission (HEC), Pakistan (2026)
- ✓ PAS Gold Medal in Emerging Technologies–2025, Pakistan Academy of Sciences (PAS), Islamabad
- ✓ Highly-cited scientist award, Quaid-i-Azam University Islamabad (2022-23)
- ✓ Member, Pakistan Academy of Sciences, Islamabad (2020-onward)
- ✓ Interim Placement for Fresh PhDs grant- IPFP (2015-16) to work as assistant professor at the department of biotechnology, Quaid-i-Azam University Islamabad (funds provided by Higher Education Commission of Pakistan; HEC).
- ✓ International PhD fellowship (2012-2014) in Biomolecular and Cellular Biology from University Roma Tre, Rome, Italy.
- ✓ ImmunoTools Award 2012, for the project "HIV-Host interactions - Cell surface markers modulations by wild type and mutated HIV-1 Nef in primary human haematopoietic cells". ImmunoTools GmbH, Germany.

Member of board of studies and NCRC

1. Member National Curriculum Review Committee (NCRC) – Microbiology (2024), Higher Education Commission (HEC), Islamabad.
2. Member of board of studies of Biotechnology, Capital University of Science and Technology (2023-25)
3. Member, Board of Studies, Department of Biotechnology, Quaid-i-Azam University Islamabad (2019- onward)
4. Member, Graduate Research Committee, Department of Biotechnology and Genetic Engineering, Hazara University Mansehra (2021-23)

Membership in Scientific Societies

- ◆ Life member of Medical Microbiology & Infectious Diseases Society of Pakistan (MMIDSP)
- ◆ Life member of Pakistan Biological Safety Association (PBSA)